TO:	**INFRASTRUCTURE AND COMMUNITY INVESTMENT COMMITTEE**
SUBJECT:	**BARRIE TRANSIT'S NEW NETWORK**
WARD:	**ALL**
PREPARED BY AND KEY CONTACT:	**M. MCCONNELL, TRANSIT PROJECT LEAD**
SUBMITTED BY:	**B. FORSYTH, DIRECTOR OF TRANSIT AND PARKING STRATEGY**
GENERAL MANAGER APPROVAL:	**R. JAMES-REID, EXECUTIVE DIRECTOR OF ACCESS BARRIE**
CHIEF ADMINISTRATIVE OFFICER APPROVAL:	**M. PROWSE, CHIEF ADMINISTRATIVE OFFICER**

RECOMMENDED MOTION

1. That the New Transit Network for implementation of the interim network in 2024 and the ultimate network in 2025 attached as Appendix "A" to the Report to the Infrastructure and Community Investment Committee dated May 31, 2023 concerning the 2024 and 2025 network maps, be approved.

2. That to reflect the changes required for the New Transit Network, the current multi-year approved capital budget associated with TR1029 – Conventional Bus Replacement project be updated as follows:

Current - Conventional Transit Bus Replacement *(In Thousands)*

	Prior Year Approvals	2023	2024	Total
Budget	$ 1,224	$ 2,238	$ 2,316	**$5,778**
Province Contribution	$ 404	$ 738	$ 764	**$1,906**
Federal Contribution	$ 471	$ 895	$ 926	**$2,292**
TCR Contribution	$ 349	$ 604	$ 625	**$1,578**
Total	**$ 1,224**	**$2,237**	**$2,315**	**$5,776**

Revised - Conventional Transit Bus Replacement *(In Thousands)*

	Prior Year Approvals	2023	2024	Total
Budget	$ -	$ 2,120	$ 1,468	**$3,588**
Province Contribution	$ -	$ 700	$ -	**$ 700**
Federal Contribution	$ -	$ 848	$ -	**$ 848**
TCR Contribution	$ -	$ 573	$ 1,468	**$2,040**
Total	**$ -**	**$2,120**	**$1,468**	**$3,588**

3. That a one-time $423,700 cost for a Public Educational Plan and service transition plan, including fare-free on Transit on Demand (TOD) for the 4-week transit service model overlap and a contract position for a period of 12 months to be funded from the Ontario Gas Tax Reserve, be approved.

4. That as part of the transition to the new system, the Director of Transit and Parking Strategy or designate be given delegated authority to provide transit fare products at no cost or discounted costs to incentivize and promote transit ridership through ongoing educational programming.

5. That the Director of Transit and Parking Strategy or designate receive delegated authority to execute Platforming agreements where regional carriers are accessing City property and where the City is accessing non-city owned property.

PURPOSE & BACKGROUND

6. The Barrie's Transit Vision Project (The Transit Vision) was launched in the winter of 2020.

7. Why re-design Barrie's transit network:

   a) **Allandale Mobility Hub:** The Transit Vision was launched primarily as a response to the new Allandale Mobility Hub and Downtown Mini-Hub. The movement of Barrie's primary terminal operations requires route changes. Staff took this opportunity to wholistically evaluate Barrie's Transit network for potential changes to better meet the needs of today's and tomorrow's transit customers.

   b) **Updated Barrie Official Plan:** The updated Barrie Official Plan has new/revised population projections, intensification corridors, and strategic growth areas for transit to service. The Vision thus aligns with the new Official Plan by providing enhanced service where growth is planned before resident travel habits have been established.

   c) **New Transit ON Demand Service:** The Transit Vision implements opportunities to expand the successful Transit ON Demand service model into low transit demand neighbourhoods for improved efficiency.

   d) **Changing Customer Travel**: Barrie's transit ridership trends are changing being influenced by numerous factors such as population growth, urban development, new technologies, environmental factors, and changes in commuting patterns. In response to these trends, The Vision aims to develop a network that is more efficient, sustainable, and accessible reflecting a growing city.

8. The Transit Vision project's scope includes:

   a) **A new 2025 transit network** - which reflects a wholistic evaluation of the existing transit network and incorporates changes to improve mobility for Barrie residents while maintaining operational cost-neutrality from existing funding.

   b) **Future planning past 2025 –** which expands the planning horizon past the initial 2025 network transformation to ensure network resiliency as Barrie grows and changes.

   c) **A Bus Stop Infrastructure Plan** – To align new bus stops and bus stop improvements (accessibility, repair, concrete pads, bus shelters, bike racks, benches, etc) with the new network and future development.

9. The Project Team consists of internal staff and an Advisory Transit Expert from Dillon Consulting. Staff planned, engaged, designed, and recommended The Vision with the Advisory Transit Expert providing a third-party perspective and feedback on project decisions. The benefits of this approach are as follows:

   a) Staff bring intimate knowledge of transit customer's needs to ensure The Vision first and foremost is customer-focused on Today's Barrie resident.

   b) The Advisory Transit consultant brings expertise from a variety of similar projects in other North American municipalities to ensure general best practice and lessons learnt from other projects are applied to The Vision.

   c) The city would also realize cost efficiencies with reduced consultancy fees.

d) The Vision has institutional longevity past the consultant contract conclusion with staff generating the analysis, documentation, and graphics.

10. The Project Milestones are provided in **Figure 1**.

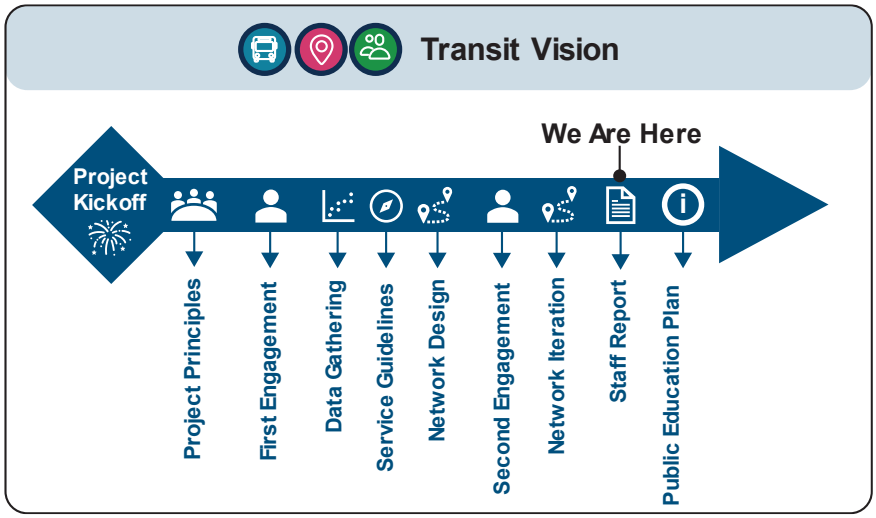


Figure 1: Transit Vision Project Milestones

ANALYSIS

11. **Transit Network Development:** The following is the path for which the New Transit Network was developed. The New Transit Network development included public engagement, data analysis, map creations, and policy scans.

a) Guiding Principles: The Project Team identified a set of Project Principles to guide the project towards deliverables that meet the needs of the transit customer as provided in **Figure 2**. The Principles were brought to Council and endorsed in Winter 2021 (per motion 21-G-012). To summarize:

i) The **Foundation** describes the basic premise that transit must be ***useful*** to customers to be used. Without a strong foundation in place, the system will not be effective and sustainable. To be useful, the transit service design must accommodate a broad spectrum of passenger needs from a diverse customer group.

ii) The **Pillars** are built on the foundation and speak to the key service design features that make the system useful. Overwhelmingly, we heard Barrie residents want a system that is Quick, Frequent and Reliable.

iii) The **Service Promises** refer guiding principles that shape the design of a Useful service that is Quick, Frequent and Reliable. These includes guidelines that focus on the longevity, financial feasibility, and customer experience of the transit network.

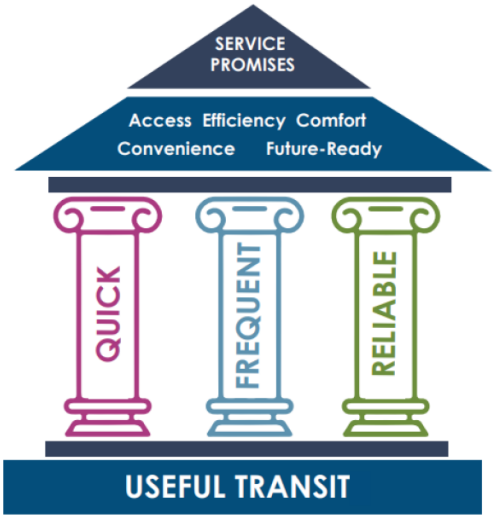


Figure 2: Barrie's Transit Vision – Project Principles

b) Useful Transit: For Barrie's transit service to be useful to residents, it needs to meet their travel needs. This is generally achieved by planning a transit network that *moves as many people, to as many destinations, as quickly, frequently and reliably as possible*. If this primary role of transit is achieved, Barrie's transit would also provide benefits to the City as listed in **Figure 3**.

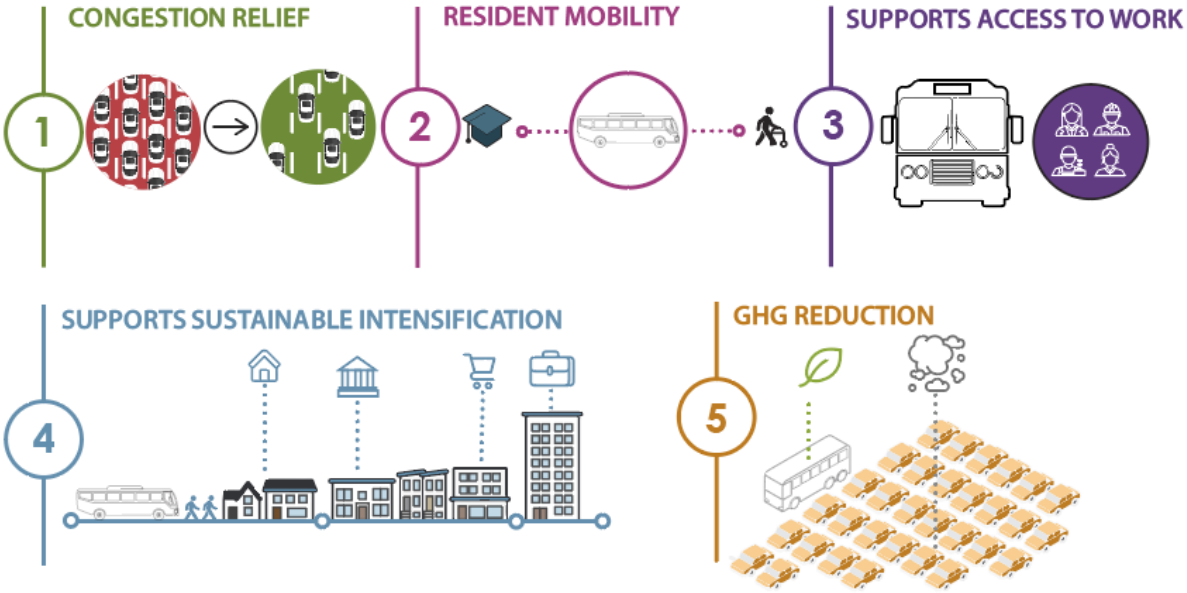


Figure 3: Barrie Benefits from Useful Transit

c) Public Engagement #1: Held in March 2021 with a total of 216 survey and write-in respondents. The purpose of this consultation was to introduce Barrie's Transit Vision, gather feedback on the current transit network, the Project Principles, and ask residents how they would like their transit network to grow. A notable highlight, 90% of survey responses indicated a desire for a new network with quick and frequent routes. A detailed feedback summary is provided in **Appendix B** (page 2). The Call to Action based on feedback from the first public engagement is provided below in **Figure 4**.

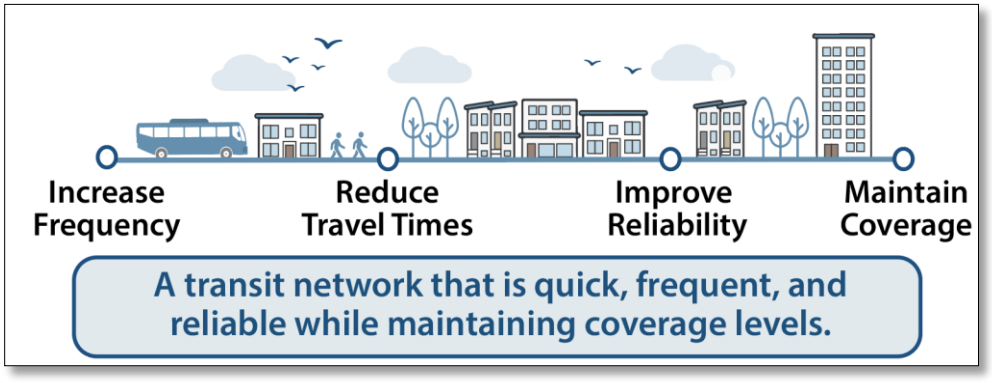
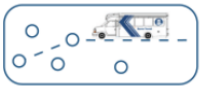


Figure 4: First Public Engagement Call to Action

d) Data Compilation: To create a network design which accommodates existing customers while being future ready, staff have compiled an assortment of data maps including population/employment densities, ridership, significant land uses, existing travel trends, income levels, and carless households. Some of these maps are provided in **Appendix B** (page 3 & 4).

e) Service Guidelines: Brought to council for endorsement in winter 2022 (per motion 22-G-019), the service guidelines regulate the delivery of conventional transit in Barrie and align back to the Project Principles so that the appropriate transit service type is allocated to the right neighbourhood. These guidelines speak to the service design, minimum transit service coverage, hours of operation, frequency, stop spacing, and ridership levels. A summary of the route hierarchies is provided below in **Figure 5.**

Service Type	Express Transit Network (ETN)	Frequent Transit Network (FTN)	Local Transit Network (LTN)	Transit ON Demand (ToD)
Mobility Objective	**Quick and direct travel** between major destinations with limited stops. Ideal for cross-city trips.	**Frequent and direct trips along major corridors.** Typically, a bus every 15-minutes or better during peak times.	Connecting **local residential to retail/employment clusters** and/or higher order routes like an FTN or ETN route.	**Flexible and optimized routing** to efficiently service low ridership areas with the right-sized vehicle.
Route Example				
Route Numbering	400's	100's	10's	Letter Zones

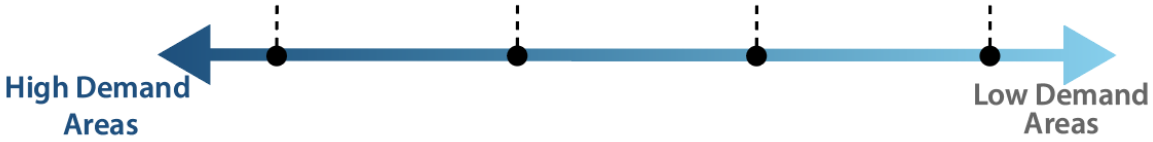


Figure 5: Route Hierarchies and Their Use Case

12. **The Proposed New Transit Network:** The proposed New Transit Network for 2025 is provided below and introduced by route hierarchy for ease of explanation.

a) Express Transit Network (ETN) is displayed in **Figure 6** and includes the following route:

i) **The Route 400 Express** travels from Park Place to Royal Victoria Hospital (RVH) via Highway 400. A common theme in the public feedback is the existing transit routes take too long to travel across the city (upwards of an hour between RVH and Park Place). This route accommodates this feedback by providing a direct connection which will reduce trip times by approximately 20 minutes relative to existing routes. The Route 400 includes stops along the Essa intensification corridor, Bayfield, and Georgian College. The Route 400 will be implemented with 30-minute frequency on weekdays.

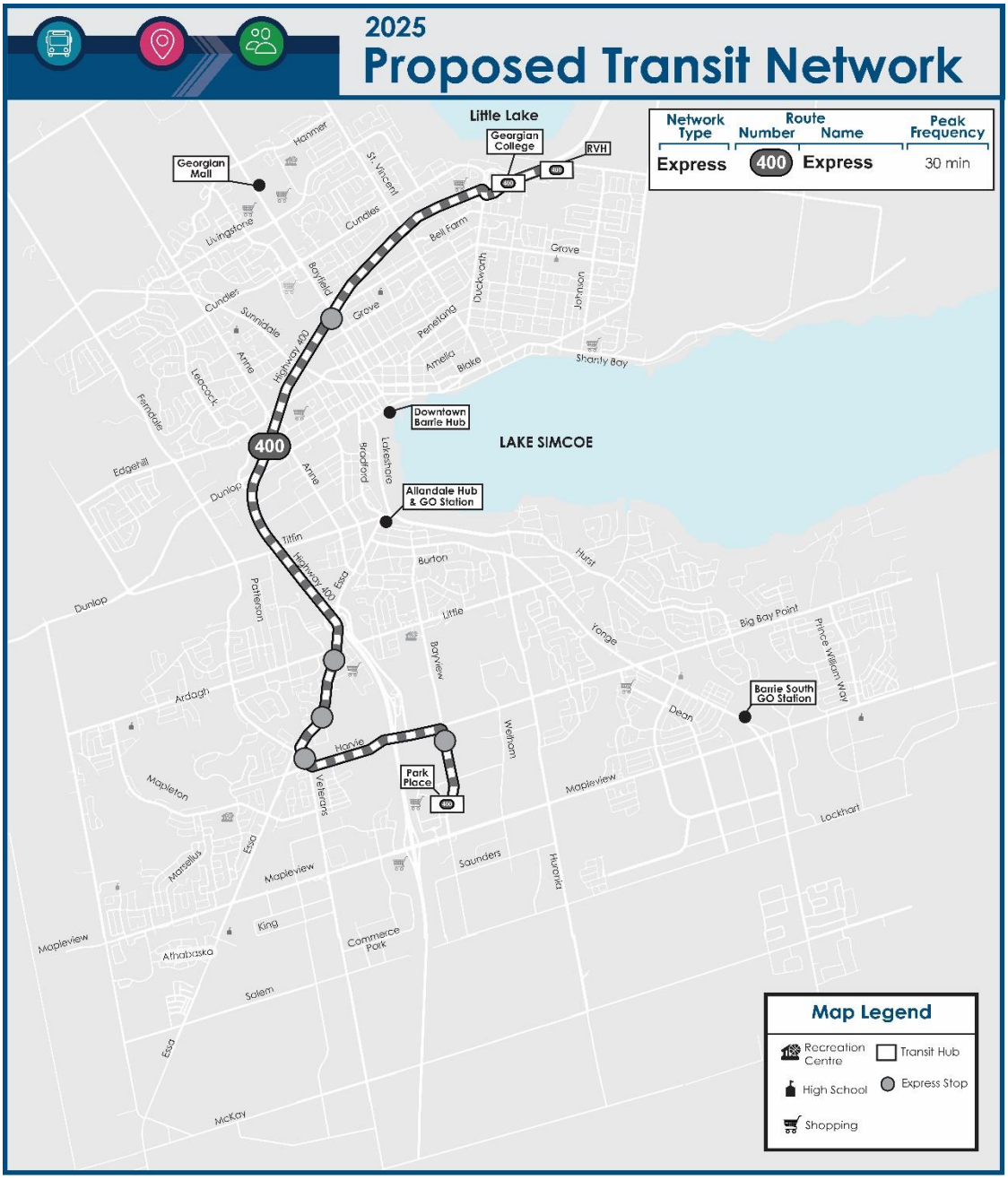


Figure 6: The New Transit Network – Express

b) Frequent Transit Network (FTN) is displayed in **Figure 7**. The FTN focuses on higher frequencies along major transit travel corridors with existing and/or planned intensification to encourage transit-supportive development patterns. The FTN includes the following routes:

i) **The Route 100 Red & 101 Blue** mirrors the existing route 100 Red/Blue but with improved frequency of approximately 15 minutes from today's 23 minutes. The one-direction/one-route naming strategy is applied to this route because of its loop configuration; this simplified naming will assist customers to identify which direction the bus is travelling on the street.

This route will help alleviate over-crowding in the areas of Johnson, St Vincent, and Bell Farm and improve access to key destinations in the Northeast including Downtown, Bayfield, Georgian College, and RVH. The areas served by this route were largely maintained as Route 100 has the highest efficiency rating in the Barrie's network from a boards per hour perspective.

ii) **The Route 102 Green** travels from Barrie South GO to Georgian College via Yonge, Bradford, Bayfield, and Grove. This route will have improved frequency from existing 30-minute peak frequency on Route 8 to the Route 102 with 15-minute peak frequency.

This route is the primary connector from Allandale GO to/from Downtown and Georgian College servicing high demand areas like Bayfield and Grove. The Yonge corridor is an upcoming high demand area with active intensification. Thus higher-order transit service will be present as these developments along Yonge are occupied encouraging long-term transit travel habits.

c) The frequent (FTN) network provides higher order transit service to over 70% of Barrie's existing transit customers in addition to focusing on the future growth areas of the city. These routes provide the most freedom of mobility for individuals to forego personal vehicle ownership in Barrie. A higher order transit map is provided in **Appendix B (**Page 7).

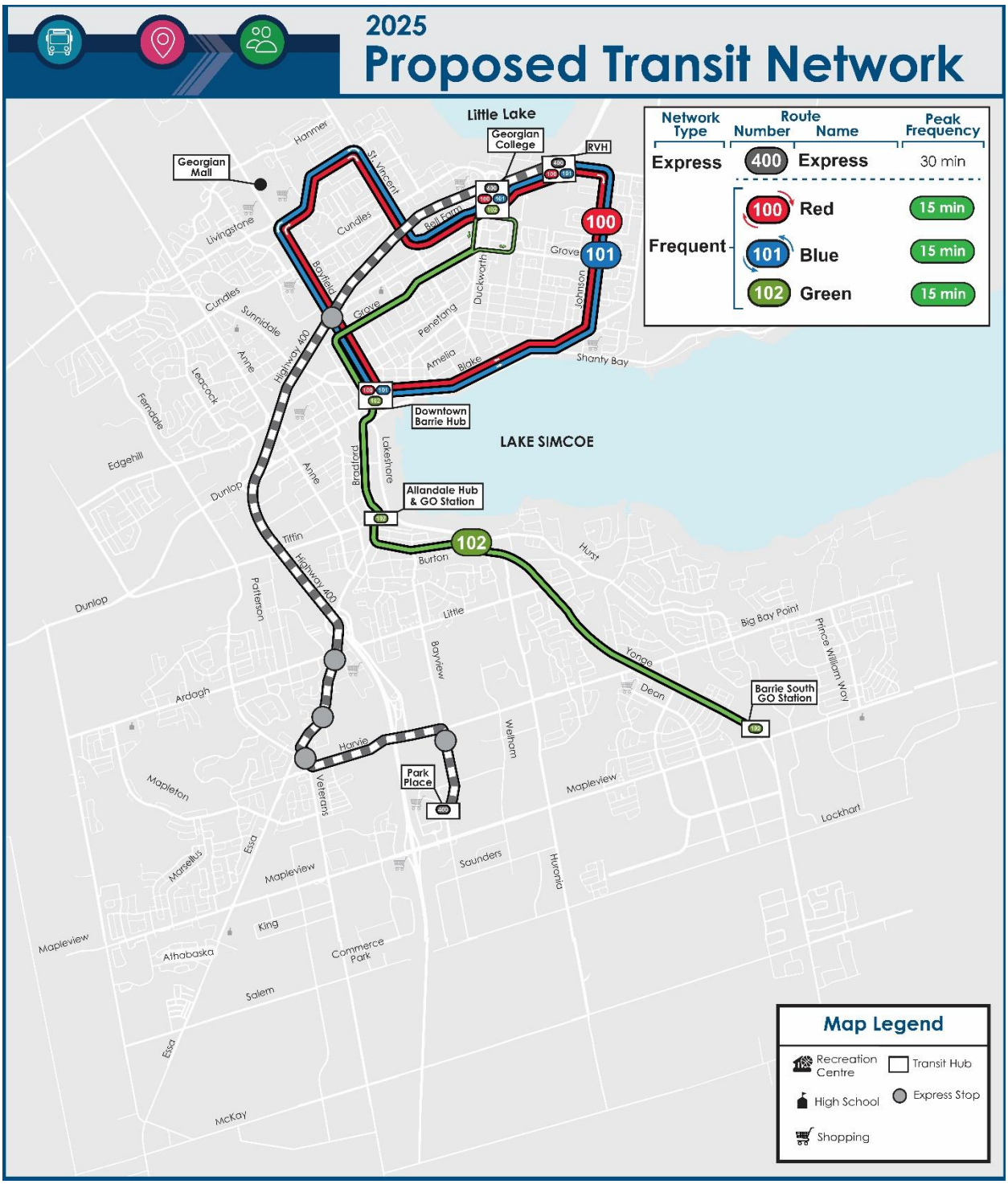


Figure 7: The New Transit Network – Express & Frequent

d) Local Transit Network (LTN) is displayed in **Figure 8**. The LTN focuses on connecting residents to higher order transit routes, local neighbourhoods, retail, schools, and employment clusters. The LTN consists of the following routes:

- **Route 10/11 North Loop** travels in a circular pattern from Downtown to Georgian College, Georgian Mall, back to downtown via Penetang, Livingstone, Leacock, and Wellington. It mirrors the existing Route 6 with adjustments to the travel route on Cook and on Wellington. It will operate with a 30-minute peak frequency and the same duration of service as the existing Route 6. Route 10 will operate clockwise, and Route 11 counter-clockwise to simplify bus identification for transit customers on the street due to the route's loop configuration.

  Route 10/11 is a north Barrie connector, and combined with the high frequencies along Bayfield, provides coverage to most areas in north Barrie due to its looping configuration. It was largely maintained from existing Route 6 due to the existing routes high efficiency (measured using a boards per hour key performance indicator).

- **Route 12 Central City** travels from Barrie South GO to Georgian Mall via Big Bay Point, Park Place, Bayview, Bradford, and Bayfield with a 30-minute peak frequency. This route is a merge of existing Routes 1 and 3 and will operate with a duration of service and frequency the same as existing.

  This route is designed to provide a central spine route from south to north as direct as possible. This is especially beneficial to the major employment transit travel pattern between Downtown Barrie and Saunders every weekday morning.

- **Route 13 Southwest** travels from Park Place to Downtown via Mapleview, Essa, and Lakeshore. This route operates with a peak frequency of 30 minutes and a duration of service which is the same as existing.

  Route 13 provides access to Barrie's popular waterfront parks, accommodating recommendations within the draft Waterfront Strategic Master Plan to relieve parking congestion on the waterfront lots by providing residents an alternative to driving. This route is also designed for a future upgrade from an LTN Route 13 with 30-minute frequency to a FTN Route 103 with 15-minute peak frequency to accommodate expected intensification along the Essa corridor. This FTN upgrade will occur post 2025 and is conditional on ridership levels and future council operating budget approvals.

- **Route 14 Crosstown** travels from Barrie South GO to RVH via Mapleview, Ferndale, Anne, and Cundles. This route will operate with a 30-minute peak frequency and operate in the same duration of service as existing Route 7.

  Route 14 Crosstown is designed to connect residents to prominent destinations such as Barrie South GO, Park Place businesses, Peggy Hill Community Centre, Allandale GO, North Barrie Crossing businesses, Georgian College, and RVH. A new feature of Route 14 to Barrie is the east/west Cundles connection to RVH, which has been an ongoing request from Barrie residents.

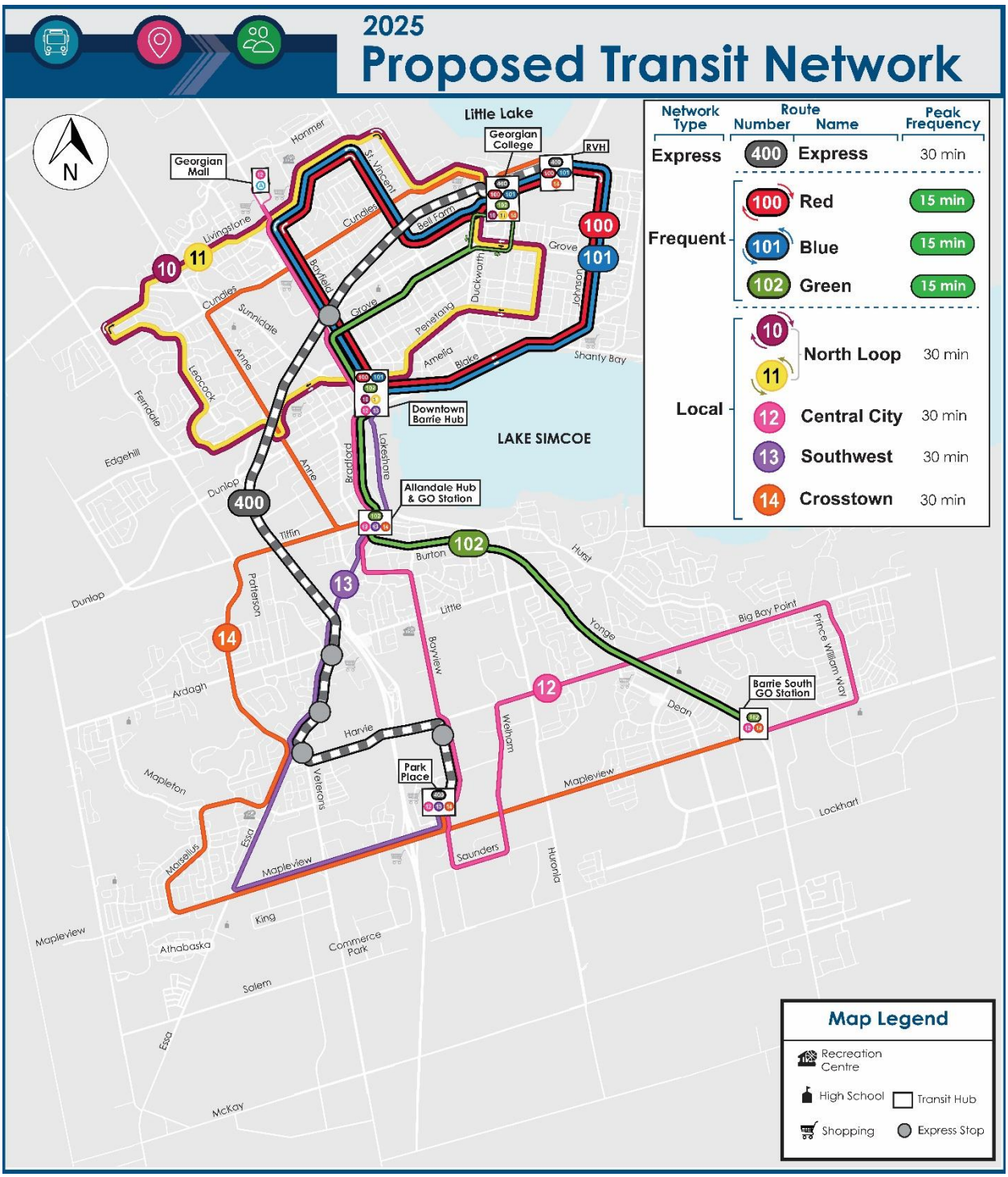


Figure 8:The New Transit Network – ETN/FTN/LTN

e) Transit ON Demand (TOD) zones are displayed in **Figure 10**.

The TOD zones focus on improving local connections from residential neighbourhoods to and from schools, retail, community centres, FTN/ETN's, and transit hubs. TOD customers generally will experience better local trips, with reduced walking distances to stops and less wait times, than lower-order scheduled fixed-route services. These benefits come with the trade-off of a transfer to fixed-routes such as the ETN or FTN for longer cross-city trips. Approximately 6% of existing transit customers will be in a TOD zone. These zones are allocated based upon their relatively low transit demand which is where this service model is most efficient.

Summarizing the observed benefits of Transit ON Demand in Barrie, the existing TOD zone in south Barrie is very well received with an average **rider review of 4.7/5 stars**. The average wait times of the existing TOD zone is 6 minutes between desired departure time and available bus pick up. This is a significant level of service improvement from 40-minute frequency on a discontinued scheduled route that this TOD zone replaced. Furthermore, staff were able to add approximately 6 kilometres of transit service coverage at no extra cost with Transit ON Demand relative to the discontinued scheduled route. This includes notable areas such as Fairview Emergency Campus, Hamilton/Welham businesses, Huronia Medical Clinic, Saunders Road businesses, and Bayview businesses.

The New Transit Network TOD zones are colour coded and alphabetically named to demonstrate a customer's destination choices. They can travel between any bus stops in the same letter/colour zone or to any connection stop with the same letter/colour. Customers would not be permitted to book a trip to a stop outside of their zone or between connection stops. An example of permitted travel options within and between the TOD zones is provided below in **Figure 9.** In this example, TOD customers are able to travel to and from any stop in Zone A or any circular connection stop A. They are not able to travel to zone B or between connection stops. Customers are restricted from travel between connection stops to maintain efficiency of the system and because these trips are accommodated by a fixed route.

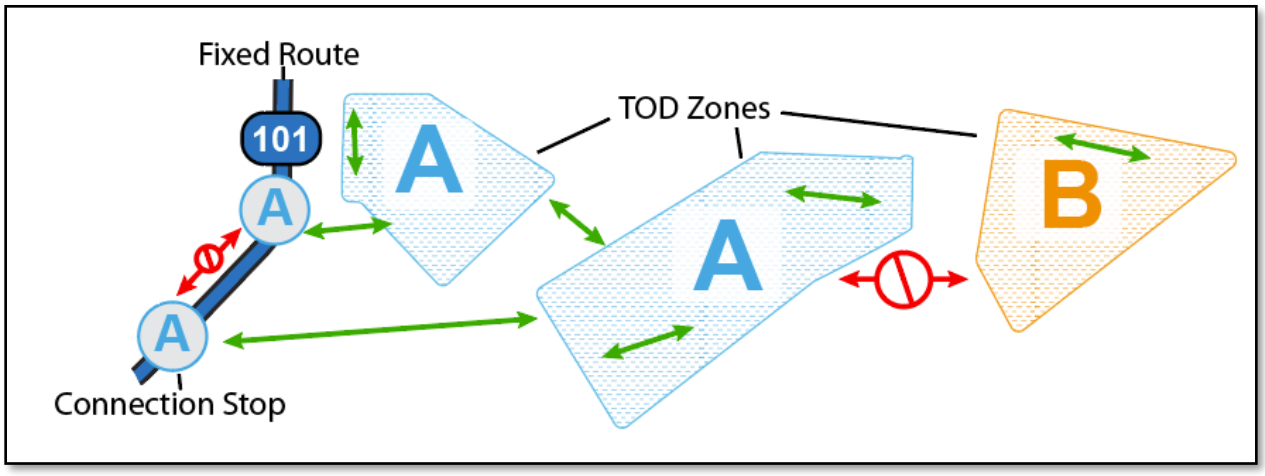


Figure 9: Transit ON Demand Zone Trips Example

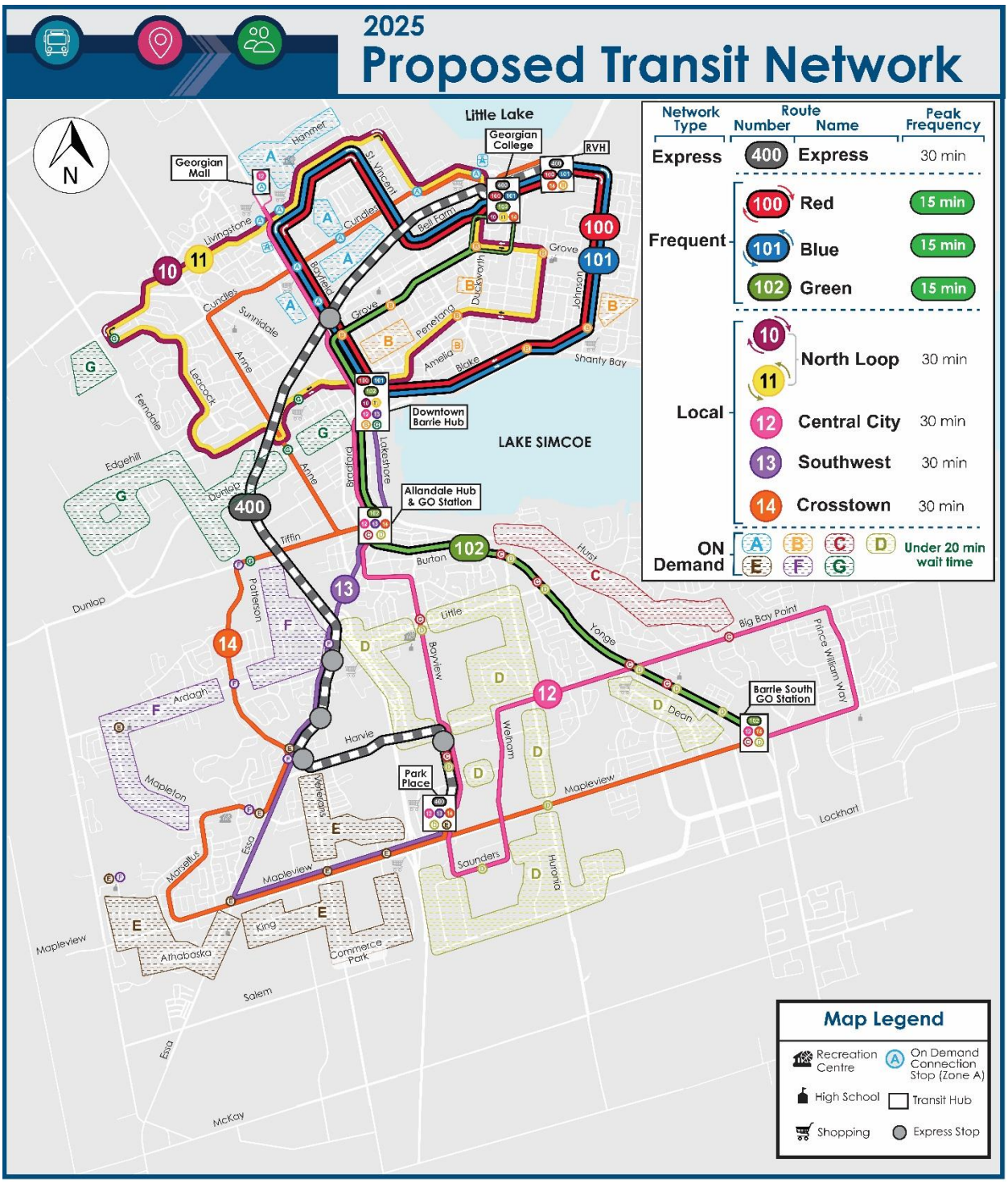


Figure 10: The New Transit Network - Complete

13. **The New Transit Network Highlights:**

a) Below are a few of the improvements of the New Transit Network relative to the existing transit network:

- **Express:** Travel time 20 minutes shorter for trips from RVH to/from Park Place due to the Highway 400 express. With key network connections along Essa and Bayfield, quicker trips are expected for a magnitude of residents throughout the city making transit more attractive to Barrie residents.

- **Frequency:** 70% of existing transit customers will use the 15-minute frequent transit network route for a portion of their trip. This is measured from the ridership of existing transit stops that the FTN services.

- **Trip Times:** Due to the ETN, FTN, and improved LTN routing directness, trip times network-wide are expected to be reduced by approximately 13%. This is measured using change in travel time between the transit hubs throughout the city.

- **Employment Access:** Residents have access to approximately 24% more jobs within a 30-minute transit travel time. Having choices in jobs allows for residents to select employment that fits their skill sets and is a key factor in personal prosperity.

- **New Transit Coverage:** Residents and businesses in the neighbourhood of Benson, Hanmer, Lakeside Terrace, Amelia, Morrow, Caplan, and King would now have access to transit services in the New Transit Network. The net new transit coverage is provided in **Figure 11** and uses a 400m buffer from each bus stop to determine coverage.

- **Cost Neutral:** The above improvements are cost neutral in terms of operating hours due to the Transit ON Demand service model, which allows the service to maintain (and added) coverage in an efficiency manner across the City.

- **Improved Travel Freedom:** Based on an evaluation of seven key areas across the network, transit customers have access to 18% more people and 24% more jobs within a 30-minute transit travel bubble relative to the existing network. The New Transit Network aims to connect as many people as possible to as many destinations as possible so that residents have as many social choices and employment opportunities as possible.

  To measure this, the project team assessed the population and number of jobs within a 30-minute transit travel time of key locations across Barrie, comparing the total for the existing network to the New Transit Network. The full assessment by the 7 key areas is provided in **Appendix C**.

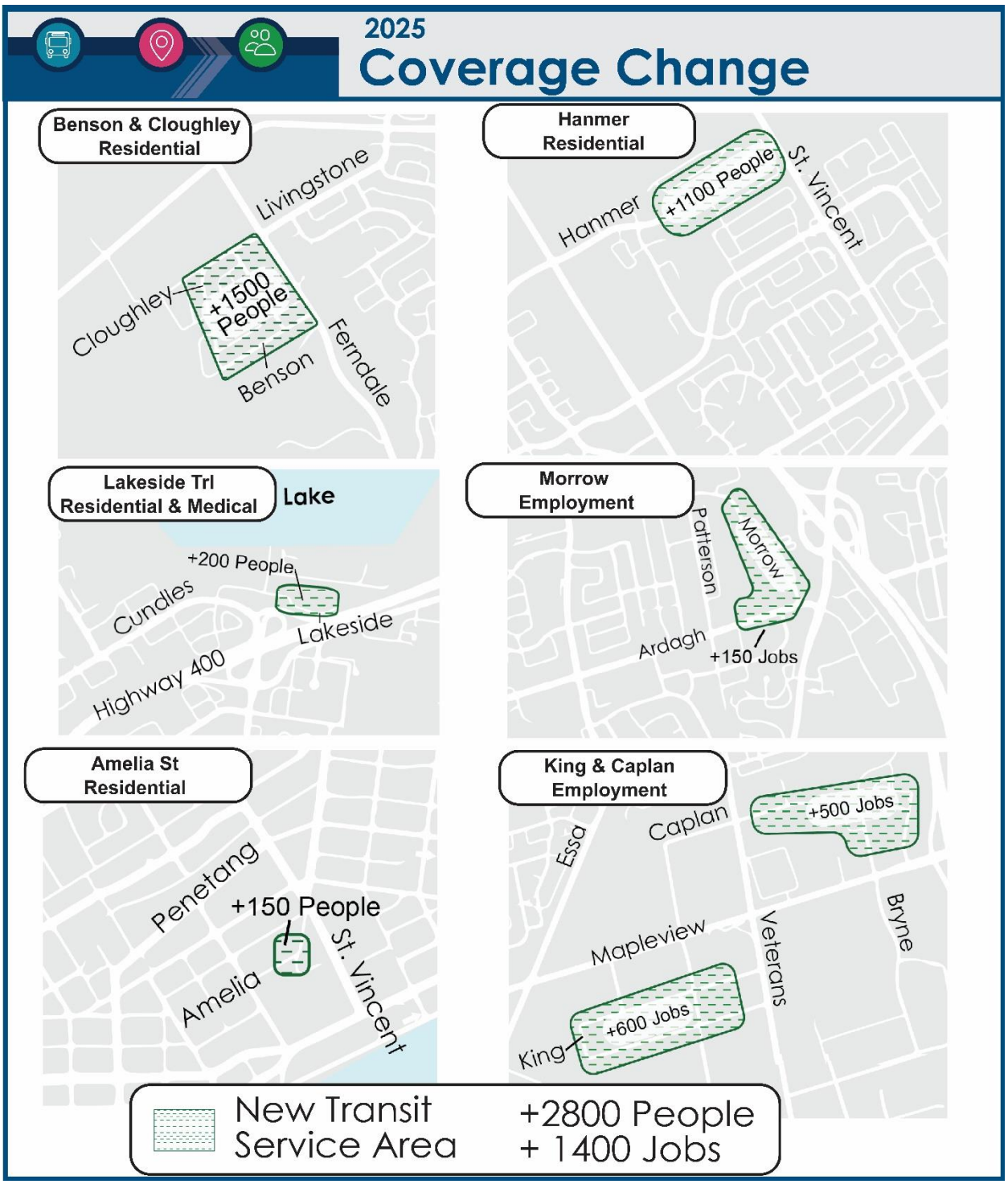


Figure 11: Added Transit Coverage – The New Transit Network

14. **Public Engagement #2**

a) With The New Transit Network designed, staff solicited feedback from the public via online and in-person engagement mediums in the month of November 2022. The in-person engagement plan included on-site information centres for six days including staff at Allandale Recreation Centre, Parkview Community Centre, Downtown Terminal, and Georgian College. The online engagement included a Project Storyboard summarizing the processes and milestones to creating the New Transit Network, a pin engagement map, and an ideas page with 269 respondents.

b) Feedback from the City's service transit service provider, including its transit operators was also collected via a customized survey to gain insights from staff which will operate the New Transit Network.

c) A full summary of the feedback is provided in **Appendix B**. Notable highlights include:

- Did we get it right? The New Transit Network **largely accomplished the call to action**. Approximately 70% of respondents agreed we got it right when it comes to quickness and frequency. 16% were unsure and 14% disagreed.

- Mobility Improvements? Respondents indicated that the primary features of the New Transit Network **will improve their personal mobility** as indicated below when asking if Express, Frequent, and ON Demand zones will have a positive impact on their mobility.

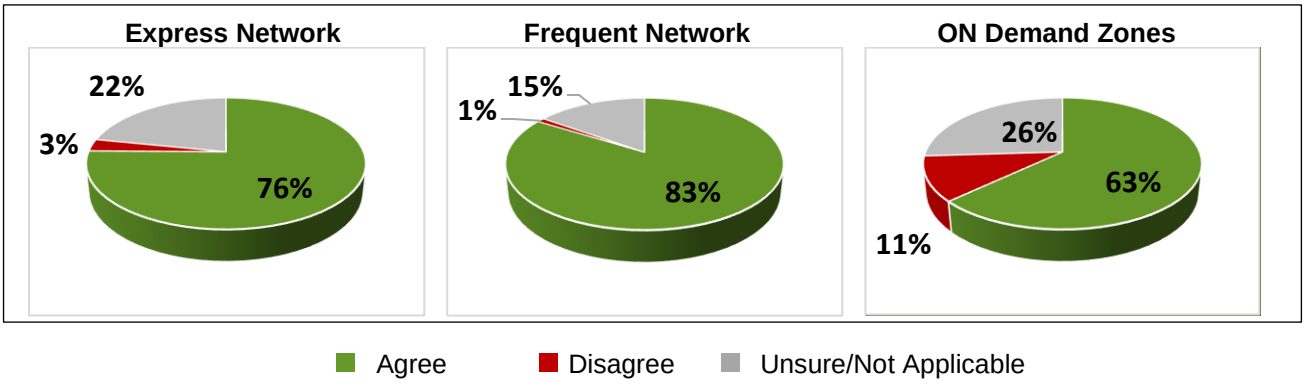


Figure 12: Public Mobility Improvements By Transit Network Feature

- New Customers: The majority of respondents who never/rarely use transit would start using transit if the New Transit Network was implemented. Thus, the New Transit Network has the **opportunity to convert auto trips to transit customers.**

- From the open-ended questions, common themes were:

  - Consideration for weekend summer traffic congestion for the 400 Express bus and bus only lanes on Highway 400, Bayfield, & Mapleview.
  - Some confusion about how Transit ON Demand works, meaning there are opportunities for more education about this service.

- Better span of service, especially on Sundays.
- Desire for alternative payment options.

15. **Future Network Planning**

a) A transit plan is never finished; it is a living network which responds to customer's travel demands. This is especially true for a rapidly growing city such as Barrie.

The New Transit Network included a future Barrie assessment in the project scope to ensure resiliency and longevity in the routing towards 2031 and to minimize disruption of any future changes to the transit customer. **Table 1** below summarizes some key guiding route adjustments and frequency improvements which align planned development and ridership trends towards 2031. These improvements are included in Barrie's 10-year Capital Plan, Development Charges Study, and align with the 2019 Transportation Master Plan. They are subject to change based upon growth of the City and ridership trends and when warranted, the operational funds will require council endorsement. Additional fleet requirements post 2029 are not included in the below table but are required to meet the 2041 modal share targets in the 2019 Transportation Master Plan.

Year	Improvement	Description	Fleet Increase
2027	Frequency	FTN Route 100/101 from 15 minutes to 11 minutes.	+2 buses
2028	Route Upgrade	Convert LTN Route 13 to FTN Route 103. 30-minute frequency to 15-minute frequency.	+2 buses
2028	Frequency	ETN Route 400 from 30 minutes to 20 minutes.	+1 bus
2028	Route Extension	FTN Route 102 extended south to planned community centre and intensification on Yonge. Frequency improvements to 12-minutes from 15-minutes.	+1 bus
2029	Route Upgrade	FTN Route 103 extended to Barrie South GO and Terry Fox Way. Minor adjustment to end of Route 17 routing.	+3 buses
2029	Route Extension	ETN Route 400 extended to Mackay and Salem Secondary Lands.	+1 bus
2029	Frequency	LTN Route 15/16 frequency from 30 minutes to 20 minutes.	+2 buses
2029	Frequency	FTN Route 100/101 from 11 minutes to 9 minutes.	+2 buses

Table 1: Planned Future Improvements Post 2025 Transit Network

b) The Future Transit Network Concept associated with the above table is provided below in **Figure 13**. Observed conditions may result in alterations to the Transit Network Concept.

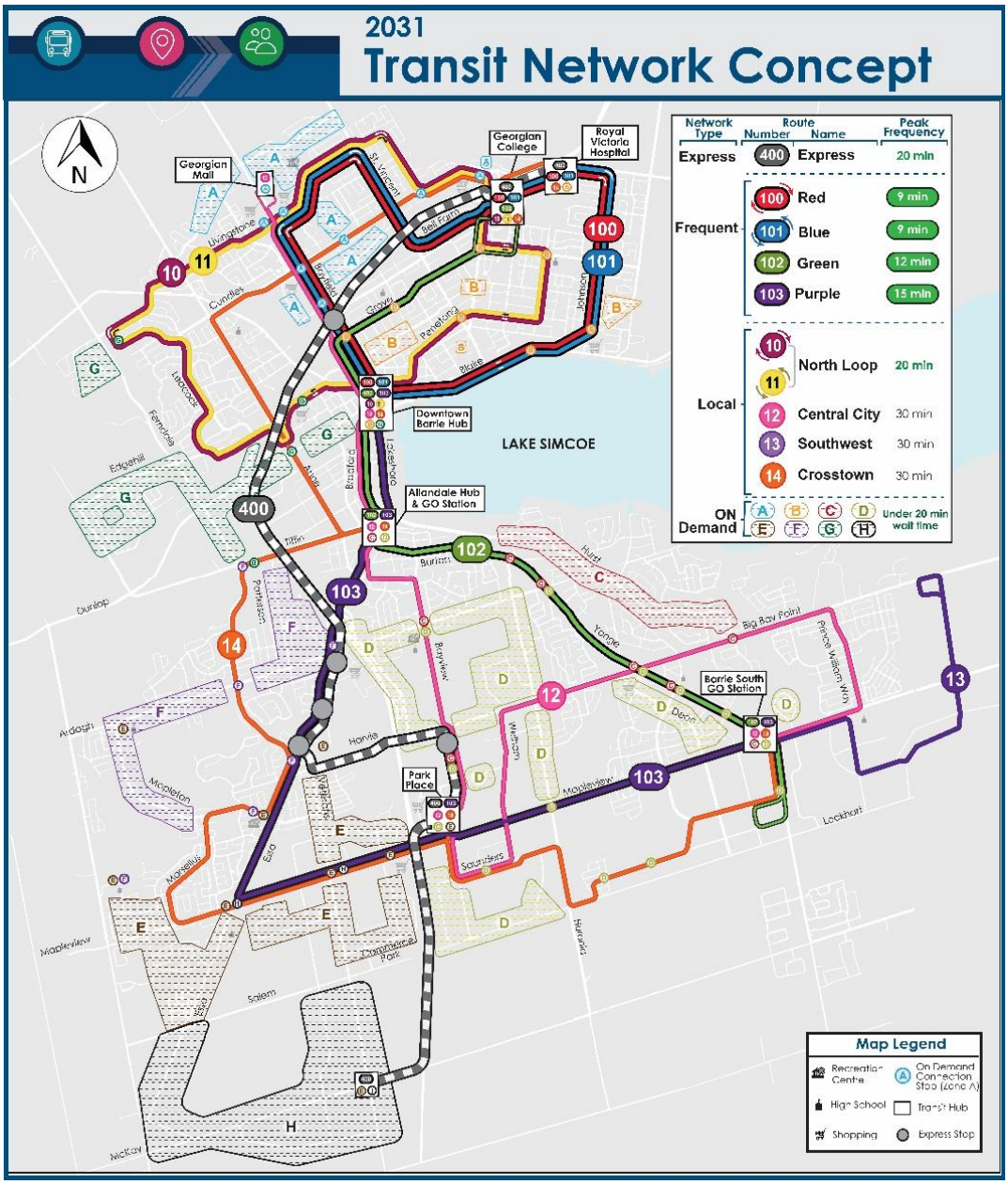


Figure 13: 2031 Future Transit Network Concept

16. **Bus Stop Infrastructure**

a) A bus stop infrastructure study was completed by Dillon Consulting, which was one of the projects funded through the Investing in Canada Infrastructure Program (ICIP). This plan recommends when and where bus stop infrastructure improvements should be made in addition to bus stop re-alignments to conform to stop spacing guidelines.

b) The plan also includes recommended bus stop sign designs to improve visibility and readability. The signs will have a double-sided bus symbol, larger, AODA compliant and include more information for the transit customer. The bus stop designs are in development.

17. **Implementation Phasing**

a) Pending Council endorsement, the New Transit Network will be implemented in two phases. One interim phase mid-2024 and the second ultimate phase in line with the Allandale Hub opening (expected spring 2025).

The benefits of phasing are as follows:

- More targeted educational and marketing to the areas being transitioned,
- Ease of transition with a reduced number of routes being impacted,
- Raised public awareness for the larger second phase, and
- Express Transit Network and Transit ON Demand transit benefits will be implemented one year sooner for the transit customer.

Given the above benefits to the customer and ease of transition, staff recommends phasing. The interim 2024 phase network map is summarized in **Table *2*** and displayed in **Figure 14**. A more detailed route by route summary of the changes is provided in **Appendix D**. Staff will advise council when the 2024 phase 1 implementation will occur based upon fleet purchase lead times, which will likely occur during the lower ridership months of spring/summer.

Existing Route	2024 Network Route	Text Description
1 →	12, D	Route 1 transitions to LTN Route 12 and TOD Zone D
2 →	2	No Change
3 →	12	Route 3 transitions to LTN Route 12
4 →	A, C, D	Route 4 transitions to TOD Zone A/C/D
5 →	G	Route 5 transitions to TOD Zone G
6 →	10, 11, B	Route 6 transitions to clockwise LTN Route 10 and counter clockwise LTN Route 11
7 →	7	No Change
8 →	8	No Change
100 →	100, 10, 101, 11	Route 100 transitions to clockwise FTN Route 100 and counter clockwise route 101 The 100A/B branch transitions to route 10/11
- →	400	New express route

Table 2: 2023 to 2024 Network Change Summary (Phase 1)

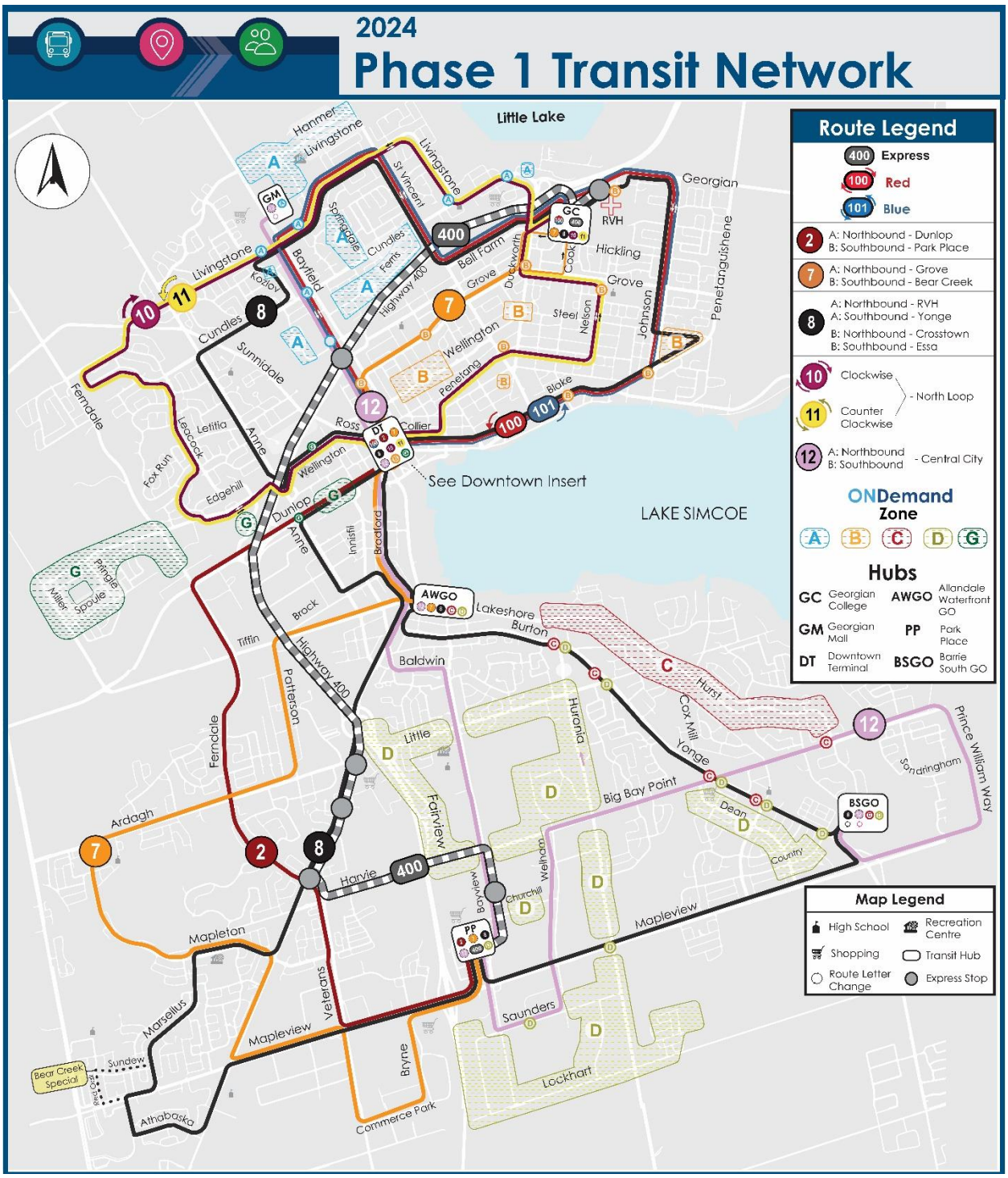


Figure 14: Phase 1 - 2024 Transit Network

18. The Route transitions from phase 1 (2024) to phase 2 (2025) are summarized in **Table 3** below.

2024 Route	2025 Network Route	Text Description
2 →	14, E, G	Route 2 transitions to LTN Route 14 and TOD Zone E/G
7 →	102, 14, F	Route 7 transitions to FTN Route 102, LTN Route 14, & TOZ Zone F
8 →	102, 100, 101, 13, 14, E	Route 8 transitions to FTN Route 100/101/102, LTN Route 13/14, and TOD Zone E
10, 11 →	10, 11	No Change
12 →	12	No Change
100, 101 →	100, 101	No Change
400 →	400	No Change
A, B, C, D →	A, B, C, D	No Change

Table 3: 2024 to 2025 Network Change Summary (Phase 2)

19. **Existing Fixed Route to On Demand Transition Plan**

a) For both phases in 2024 and 2025, the Transit ON Demand service zones (which are currently fixed-routes) will be transitioned with a 4-week overlap of both services as demonstrated in **Figure *15***. This eases the transition for transit customers by allowing them to try out and establish Transit ON Demand habits with their existing route in place. The overlap will be implemented so that the ultimate 2025 network is in place for the opening of the Allandale Mobility Hub.

b) It is also recommended that the TOD service be made fare-free for the 4-week overlap period to encourage customers to evaluate the TOD service with the goal of enhancing adoption of the TOD service model during the overlap period.

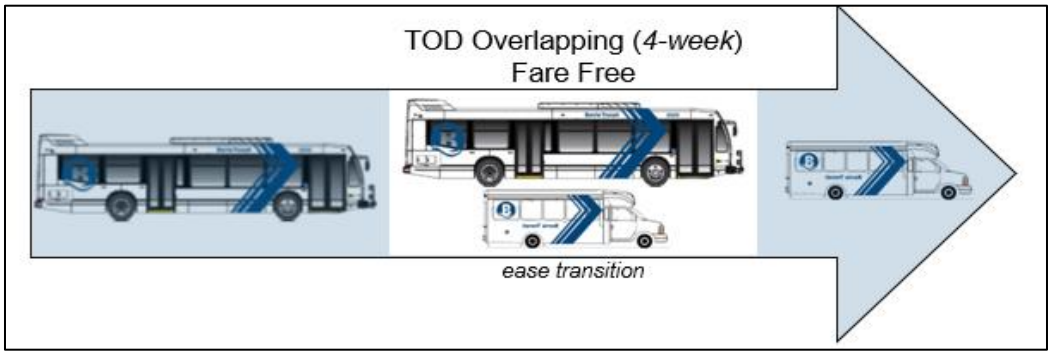


Figure 15: Fixed to TOD Transition Plan

20. **Platforming Agreements**

a) Platforming Agreements are necessary with regional transit service providers on City lands and with Barrie Transit services on non-city lands towards terms and conditions between infrastructure owners and the transit service providers.

- Examples of regional transit services at City facilities include Simcoe Linx, Metrolinx, and Ontario Northland at Allandale Waterfront GO Station.

- Examples of Barrie transit services on non-city lands include Park Place, Georgian College, and Barrie South GO.

21. **Public Education Plan**

a) Public feedback on this plan to date has been overwhelmingly positive. However, changes to the transit customer's daily travel plans can take time to settle into the adjustment. Increased feedback volumes during the initial transition of change can be expected. To ease the transition, the project team will begin a comprehensive customer-focused Public Education Plan.

b) Some highlights of the Public Education Plan include:

- A summary of the New Transit Network and benefits of the change.
- Transit ON Demand education about booking via app, web browser, or phone, with specific focus on less tech inclined demographics. This could be done through travel training, videos, training brochures, or staff one on one sessions.
- Councillor information sheets summarizing changes by ward and potential areas of feedback from the public based upon previous consultations.
- Advanced public notification of timelines for changes and contact information for questions.
- On site educational materials sent to facilities such as community centres, retirement residences, and schools.
- On site staff at key locations directing passengers during the initial changes.
- Community outreach events such as travel training for seniors, new Canadians, and students.
- A Communications Plan to support the implementation of the New Transit Network.

22. **Community Outreach Events – Free/Discounted Fares**

a) Barrie Transit recommends conducting travel training and community outreach events as part of the Public Education Plan. These events could be tailored to educating existing and new potential transit customers on The New Transit Network and mobile/internet applications (mobile fare and trip planning) available to them to find and guide them through their transit experience.

b) Examples of the Community Outreach Events could include travel training for public school students, Georgian College students, new residents, & seniors. The events could also include transit vehicle demonstrations at Open Air Dunlop and Barrie's Farmers Market.

c) Staff recommend providing free/discounted fares at these events so that residents may trial using Barrie Transit for their commute, shopping, or recreational trips. By providing this transit trial and additional training, residents may become new long-term Barrie Transit customers.

23. **Fleet Plan**

a) To service the New Transit Network there would be no changes to the total number of transit fleet, however there will be a requirement to right-size the type of vehicles. This change will require a decrease in full sized conventional buses and an increase of TOD buses as illustrated in **Table 4**. Pending Council endorsement of the New Transit Network, the Conventional Bus Replacement capital budget (TR1029) will be updated to reflect the vehicles requirements.

b) Right sizing the TOD vehicles will allow service in areas which a full-size bus is unable to traverse (i.e. Lakeside Terrace & Amelia St) in addition to reduced GHG emissions from smaller vehicles.

	Conventional Transit Buses	Transit ON Demand Buses	Total Peak Buses
			
Existing	46	1	47
Transit Network 2025	37	10	47

Table 4: New Transit Network Fleet Plan

24. **Monitoring Plan**

a) Establishing KPIs for measuring the network redesign process builds transparency and helps to tie goals directly to the outcomes of the plan. **Table 5** Summarizes what success is based upon the Project Principles.

KPI Measurement	Details	Status
Improved Access	KPI: Increase the number of people and jobs accessible within 30-minutes travel time from 7 significant origins. (**Appendix B**) Importance: Access measures your ability to go places and do things. Improved access enhances your employment or social opportunities.	Achieved, Route structure provides city-wide access to 18% more people and 24% more jobs.
Service Coverage	KPI: Maintain service coverage levels of people and non-industrial jobs within 400m of a transit stop. Importance: A measure of the transit network's reach across the city.	Achieved, Coverage levels have beenmaintained with a few expansion areas such as King, Benson, Little Lake, and Amelia.
Frequent Transit Network Coverage	KPI: Large portion of existing transit customers benefiting from a frequent transit route. Importance: Frequent service provides the freedom for a resident to be flexible and dictate their own schedule instead of reliant to a transit schedule.	Achieved, Approximately 70% of existing transit customers would utilize a FTN for at least a portion of their trip.
Existing Travel Trends	KPI: All existing high and medium weekday trip patterns able to be completed in a direct trip. Low trip patterns within one transfer. **(Appendix A** – Page 3 for definition of travel patterns) Importance: The measure of how well the New Transit Network accommodates existing riders' trips.	Achieved, All medium and high trip patterns completed with a direct trip. Low trip patterns with one transfer.
Travel Time Reduction	KPI: 10% reduction in total real trip time between Barrie's 6 hubs. Importance: Travel time savings can be used to measure the impact of the route redesign on passengers which can contribute to increased satisfaction and ridership.	Network has been designed to achieve this. Will be monitored post implementation based upon observed data.

Table 5: Definitions of Success

ENVIRONMENTAL MATTERS

25. There are no environmental matters related to the recommendations.

ALTERNATIVES

26. There is an alternative available for consideration by General Committee:

Alternative #1 General Committee could choose not to authorize the New Transit Network.

This alternative is not recommended given the re-location of Barrie's primary terminal to Allandale GO from downtown. Maintaining the existing route network would be operationally inefficient and not fully utilize the new terminal facility, accommodate city growth projections, or move the City closer the modal share targets.

FINANCIAL

27. The 2025 New Transit Network Plan has been built to maintain operational cost neutrality with similar operating hours.

28. There will be a reduction in the capital expenditures associated with the 10-year capital plan by over $10 million. The New Transit Network requires less 40 ft conventional fleet, as the expanded TOD service model will be accommodated through smaller 8-metre (cutaway) vehicles. **Table 6** illustrates the current 10-year capital plan, and **Table 7** represents the 10-year capital plan as updated to support the New Transit Network.The requested budget approvals for 2023-2024 are included in the motion(s) of this staff report, while the changes to the 2025-2032 forecasts will be included in the 2024 Capital Plan.

	Prior Year Approvals	2023	2024	2026	2027	2028	2029	2030	2031	2032	Total
Budget	$ 1,224	$ 2,238	$ 2,316	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 5,778**
Forecast	$ -	$ -	$ -	$ 2,481	$ 3,424	$ 3,544	$ 5,501	$ 5,694	$ 5,865	$ 6,041	**$ 34,947**
										Total	**$ 40,725**
Province	$ 404	$ 738	$ 764	$ 819	$ 1,130	$ 1,169	$ -	$ -	$ -	$ -	**$ 5,024**
Federal	$ 471	$ 895	$ 926	$ 992	$ 1,369	$ 1,417	$ -	$ -	$ -	$ -	**$ 6,070**
TCR	$ 349	$ 604	$ 625	$ 670	$ 924	$ 957	$ 5,501	$ 5,694	$ 5,865	$ 6,041	**$ 27,230**
Total	**$ 1,224**	**$ 2,238**	**$ 2,316**	**$ 2,481**	**$ 3,424**	**$ 3,544**	**$ 5,501**	**$ 5,694**	**$ 5,865**	**$ 6,041**	**$ 40,725**

Table 6: Current 10-year Capital Plan (in thousand*)*

	Prior Year Approvals	2023	2024	2026	2027	2028	2029	2030	2031	2032	Total
Budget	$ -	$ 2,120	$ 1,468	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 3,588**
Forecast	$ -	$ -	$ -	$ 1,644	$ 3,387	$ 4,361	$ 5,391	$ 3,702	$ 2,989	$ 3,079	**$ 25,763**
										Total	**$ 29,351**
Province	$ -	$ 700	$ -	$ 543	$ 1,118	$ 1,439	$ 1,719	$ -	$ -	$ -	**$ 5,518**
Federal	$ -	$ 848	$ -	$ 658	$ 1,355	$ 1,745	$ 1,970	$ -	$ -	$ -	**$ 6,576**
TCR	$ -	$ 573	$ 1,468	$ 444	$ 915	$ 1,178	$ 1,701	$ 3,702	$ 2,989	$ 3,079	**$ 17,257**
Total	**$ -**	**$ 2,120**	**$ 1,468**	**$ 1,644**	**$ 3,387**	**$ 4,361**	**$ 5,391**	**$ 3,702**	**$ 2,989**	**$ 3,079**	**$ 29,351**

Table 7: New Transit Network Revised 10-year Capital Plan (in thousands)

29. Council approval of the New Transit Network would result in a reduction of $2.2 million dollars to the approved multi-year project TR1029 – Conventional Bus as summarized in **Table 8**.

Current - Conventional Transit Bus Replacement (*In Thousands*)				
	Prior Year Approvals	2023	2024	Total
Budget	$ 1,224	$ 2,238	$ 2,316	**$ 5,778**
Province Contribution	$ 404	$ 738	$ 764	**$ 1,906**
Federal Contribution	$ 471	$ 895	$ 926	**$ 2,292**
TCR Contribution	$ 349	$ 604	$ 625	**$ 1,578**
Total	**$ 1,224**	**$ 2,237**	**$ 2,315**	**$ 5,776**

Revised - Conventional Transit Bus Replacement (*In Thousands*)				
	Prior Year Approvals	2023	2024	Total
Budget	$ -	$ 2,120	$ 1,468	**$ 3,588**
Province Contribution	$ -	$ 700	$ -	**$ 700**
Federal Contribution	$ -	$ 848	$ -	**$ 848**
TCR Contribution	$ -	$ 573	$ 1,468	**$ 2,040**
Total	**$ -**	**$ 2,120**	**$ 1,468**	**$ 3,588**

Table 8: Adjustment to Approved Capital Plan

30. As change to the entire transit network can impact many residents, it is important to have a strong transition and educational plan. Staff are recommending overlapping fixed route and Transit ON Demand services for a period of 4-weeks in applicable areas with a one-time operating cost of $189,200, which includes hourly operating costs and expected revenue impacts due to the free trial on Transit ON Demand. This will ease the transition for the applicable transit customers to a new transit service model. Staff are also recommending that a one-time cost of $234,500, to support the transition plan and education plans, which includes a contract position for one year, advertisements, and printed materials, be endorsed by Council. The total one-time funding for $423,700 will be funded from the Ontario Gas Tax Reserve.

31. The enhancements to bus stop infrastructure are funded through approved capital project TR1018 – Bus Stop Infrastructure Replacement/Improvements.

LINKAGE TO 2022-2026 STRATEGIC PLAN

32. The recommendation(s) included in this Staff Report supports the following goals identified in the 2022-2026 Strategic Plan:

☒ Make it easier to move around the City.

☒ Financial stewardship which includes finding efficiencies and innovation

APPENDIX A: 2024 AND 2025 NETWORK MAPS

APPENDIX B: VISION STORYBOARDS

APPENDIX C: ACCESS MAPS

APPENDIX D: ROUTE CHANGES